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AMERICAN JOURNAL OF OPTOMETRY

Vol. 17 MARCH, 1940 No. 3

COMMENTS ON VISUAL SURVEY WORK AMONG MOTORISTS AND A PRELIMINARY REPORT OF AN OCULAR SURVEY MADE IN MINNEAPOLIS

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The subject of motorist surveys is one of promising interest to optometrists. It should be remembered that visual acuity is only one detail pertinent to the subject. From the standpoint of motoring safety such surveys should encompass more than mere visual tests and should properly be labeled "Physiological Motorists' Survey." Optometry has neglected related fields and failed to take advantage of the economic and social possibilities of such studies. One consolation is that the field is still virgin and that the work done so far has been more pioneering than a widespread application of the few accepted principles. There is much yet to be learned in motorists' surveys and an opportunity for service and recognition is lying at optometry's door.

Optometry must do more than finance and sponsor the work of investigators of physio-psychological factors involved in motoring safety. It must take an active and personal part in such studies. It must study safety bibliography and take part in the monotonous process of fact finding, to acquire a first hand experience in the subject. Only thus can optometrists acquire the reputation of knowing experience and secure official recognition of their views.

In view of past experience and research of independent investigators motoring safety breaks down to three fundamental principles enumerated in order of their importance:

1. Motorists' attitude.
2. Physiological factors involved in motoring.
3. Motorists' experience and manual skill.

*Submitted for publication January 12, 1940.

The attitude of the motoring public obviously is of greatest importance. Motoring has its own peculiar form of anti-social thought. Publicity, propaganda, legislation and punishment all have a part in developing consciousness of safety in the motorist's mind. To date no method has been devised to analyze motorists' attitude and therein lies one of our greatest safety problems.

Experience and manual skill are a minor and decreasing problem with the greater number of drivers passing beyond the beginner's stages and mechanical improvements in the maneuverability of the modern motor car brought on each year by manufacturers.

The physiological factors are numerous, but some are of undetermined importance. The current thought is that there is in each physiological quality a certain minimum below which the testee becomes accident prone. That minimum can be disputed. In this viewpoint is the greatest difficulty. Who is going to set the minimum and why?

The best way to gain a good perspective of the difficulties involved in determining physiological standards for motorists is to organize and conduct a motorists' survey. Such a survey was conducted in the Minneapolis Municipal Auditorium during the week of the Minneapolis Century Celebration October 2nd to 8th, 1939, by the Minneapolis Association of Optometrists with the collaboration of the Hennepin County Safety Council. The problems confronting the organizers of this survey are best recapitulated in three phrases: 1. Lack of adequate space. 2. Lack of sufficient money. 3. Lack of time for preparation. All three are the most common obstacles met in such activities. Their solution lies in optometry taking a greater interest in this work.

Selection of Method

Some years ago the writer arrived at the independent conclusion that the basis of acceptance of tests by the motoring public is in making these tests informative and not qualifying. By that is meant that the only way that safety can be "sold" to the public, is in pointing to the individual in what way he is below average; what he can do about remedying this defect and, if his condition is not subject to improvement, how he can compensate for it by exercising greater caution. On that basis the reasonable individual is willing to assume responsibility, but he will also insist, and it is his right to do so, that other individuals do the same. Thus is created the co-operative attitude to make motoring safety programs effective.

Keeping this thought in mind, a card (Figures 1a and 1b) was designed to serve a dual purpose. First, to give a comparative lay rating of the motorist's performance on the ten tests adopted. Secondly, to explain simply the significance of the scores. The card is here reproduced in both obverse and reverse. The columnar space is merely used to check off the result of each test as "good", "fair", or "poor". The reverse of the card calls attention to the fact that a "good" score signifies the person to have average or better than average reactions and responses, and that this finding does not exempt him from using the ordinary rules of caution. A "fair" score indicates reactions below average and suggests that extra caution is necessary. An average of "poor" makes extreme caution mandatory. Note that nothing is said of the qualifications of such individual to a license, or the privilege of driving a car.

The state of Minnesota license procedure is merely a registration formality consisting of the statement by each motorist, that he suffers from no defect disqualifying him as a driver.

This method of registration, while better than none, is just what the name implies: a registration. To call the document issued in acknowledgement, a license, is a figure of speech. The revocation of such "license" for physical causes is good evidence of hind thought.

The adoption of the present motorist licensure by the State of Minnesota is, however, to be commended as a preparatory step toward a more exacting set of requirements and it has resulted in its acceptance by the people of the State, as coming desirable legislation.

Just as the scores of each test were meant to indicate not how much above average, but how his below average performance might affect his motoring safety, a general or total score was used. The method of arriving at a total score was as follows: Out of ten tests, seven "good" or better—good. Five "good" and not more than three "poors" —fair. Four "poor" or more, and less than five "good"—poor.

The gradings of good were very liberal except in two tests: One being the field of indirect vision, the other sensitivity to glare. It was thought that anyone getting an average of "poor" on these tests with the liberal ratings given, was truly handicapped from the standpoint of motoring.

The attitude of the operators of this survey at all times was one of helpfulness. The object of this survey being not, who should be de-

FIGURE 1A

MOTORIST'S SURVEY NO.

Conducted under the joint auspices of the
Hennepin County Safety Council and
Minneapolis Association of Optometrists
Minneapolis Century Celebration
October 2 - 7, 1939

TEST		Good	Fair	Poor
FIELD of Vision				
Vision without glasses	Right			
	Left			
Vision with glasses	Right			
	Left			
Sensitivity to glare				
Speed of reaction to sound				
Binocular vision				
Depth perception				
Color sense				
Brake speed test				
Knowledge of signs				
Total Result of analysis		Good	Use Extra Caution	Use Extreme Caution

FIGURE 1B

The purpose of these tests is to appraise you of physiological peculiarities which may be a factor in your driving ability. A general "Good" score does not dispense you from the usual rules of caution and driving courtesy. It merely signifies that your senses are average or better. A "Fair" score signifies that you are below average in some detail and that you should endeavor to correct it, if possible, or allow for it in your driving behavior. A "Poor" score signifies that you show serious defect of some function, and that you should use unusual care in driving. Do not let your past good record influence your attitude toward the findings of this survey. It is based on known facts, products of research in Public Safety.

Minneapolis Association of Optometrists

KNOW THE FACTS ABOUT YOURSELF—
GOVERN YOURSELF ACCORDINGLY—
DRIVE SAFELY

Hennepin County Safety Council

prived of the privilege of driving a car, but rather posing the question: Are your reactions normal for motoring and if not, what can you do about correcting it? Recommendation by the optometrists regarding glasses and treatment were carefully avoided, and self-advertising was grounds for expulsion from the project. A cursory investigation of the procedure in such surveys showed a pronounced lack of standardization. The problems in instigating such surveys are to determine what tests should be made, what equipment shall be used and what grading method shall be employed, besides the desirability of creating good will of the public toward such surveys. It was hoped that this survey would yield information from the statistical point of view. Due to the lack of standardization of procedure and rating method it was thought advisable to limit ourselves to those tests which were of greater significance in motoring, and to adjust a method of rating proportional to this significance.

Accordingly the following tests were incorporated:

1. Field of vision. This was thought to be one of the most important tests of all and for that reason the standard set was quite severe. The technique consisted in using a Ferree and Rand Perimeter with a 5mm test object, measuring only the 180th meridian. The extent of field on right and left side was measured only in cases where vision was present in both eyes. In the case of monocular vision, the extent of field was limited by the nose and therefore the naso-temporal measurement represents the total field for that person.

The scoring was as follows:

160 or more: Good
120 to 159: Fair
Below 120: Poor

By this method of scoring, a one eyed person can hardly get better than a "poor" score.

2. Visual acuity without glasses. For both this test and that with glasses, if worn, the Projecto-chart was used because of its convenience and the fact that its "keyed" chart gives the acuity at the end of each line. Visual acuity was taken with each eye separately, the motorist being asked to read the numbers with the right eye and the letters with the left eye. Then, in case of subnormal vision, he was asked to read the smallest line with both eyes, thus giving a measurement of his total acuity. This combined acuity in some cases is better than the monocular acuity of the

dominant eye, in other cases it is worse. No attempt was made to determine eye dominance.

3. Visual acuity with glasses. Of tests No. 2, and No. 3 their order of taking depended on whether the motorist wore glasses constantly. To expedite the procedure if he presented himself with glasses on, the corrected visual acuity was taken first. The scoring for both tests was as follows:

20/30 or better—good
20/30 to 20/50—fair
20/50 or less—poor

It will be noted that this scoring is a little more liberal than that commonly used, but again it is to be pointed out that one of the purposes of this survey was to induce public co-operation. We believe that nothing can be gained in public co-operation by dramatically pointing out the dangers of 20/40 vision in motoring as done in certain states. That attitude is contrary to the motorist's own driving experience.

4. Sensitivity to glare. This test was made with the glarometer. The technique was that of visibility to that of invisibility. The reading was made at the moment the word "out" could not be seen either in whole or in part, and when the fixation target became merely a dark spot. The motorist was given as much as possible the benefit of the doubt and on that basis the scoring was as follows:

65 to 100—good
35 to 64—fair
0 to 34—poor

With this arrangement most people failing to score "good" readily confessed to a marked sensitivity to automobile headlights. Just prior to this test the age and sex of the motorist was taken for purposes of record.

5. Speed of reaction time to sound. This test was made by means of an electric timer and a telegraph key. The hand of the operator was concealed. The motorist was told to place his finger on the key at the word "ready" and to press down lightly on the key to make contact. As soon as he heard a buzzing sound he was to remove his finger from the key as quickly as possible. After the preliminary demonstration test, this was repeated five times, each finding was entered and the mean was computed to determine the score as follows:

20/120 or less: Good
40/120 to 21/120: Fair
41/120 or more: Poor

The clock made a buzzing sound upon closure of the circuit by the operator and registered the speed of reaction time to sound, in 120ths of a second. No difficulty was experienced with the setup except in the case of a few oldsters who were unable to hear the sound plainly in the general noise prevalent at the time.

6. Binocular vision. For this test as well as the next two, the Keystone instrument was used as being the most conveniently available. With the four-dot card, the score was:

Binocular vision present: Good
Suppression or lack of fusion: Fair
Diplopia or monocular vision: Poor

7. Depth perception. The Keystone card bearing ten rows of characters was used. As the card measures only from 50 to 100 per cent depth perception, the scoring was as follows:

75% or more: Good
74% to 50%: Fair
Undetermined: Poor

This estimation of depth perception is purely arbitrary. Use of this method was experimental and the validity of this method and application to motoring safety will be further considered in a later article.

8. Color vision. The four Keystone squares with numbers were employed. The test consists of identifying colored numbers in each square of contrasting color, similar to the Ishihara test. The scoring was as follows:

Slight defect: Good
Marked red or green defect: Fair
Complete red and green blindness: Poor

The factor of color vision in motoring safety has been frequently discussed. Of all physiological defects involved, relative color blindness is the one that is most readily compensated and it seems almost superfluous to add this test to a routine technique.

It should be remembered, however, that defects of visual acuity are often compensated by the color difference of automatic signals. The Griswold type of a street signal is just as often identified by its color as by its lettering.

But as slight color defects have no apparent bearing on red and green identification, they were ignored and given a "good" score. Marked red

or green defects are also compensated for by the motorist and were given a "fair" score.

9. Brake speed test. This test was performed with a device simulating the application of a foot on the brake of an automobile upon presentation of a red stimulus light. A warning yellow light was first presented. Unfortunately the clock used in connection with the apparatus was not capable of accurately measuring very small intervals of time. The test is more obviously a measure of the alertness and muscular speed, than it is one of actual speed of reaction time. However, the findings of this test generally coincide with those of test No. 5.

10. Knowledge of signs. It was suggested that a psychological questionnaire be incorporated in the survey to determine the motorists' attitude on the subject of "Motoring Safety." The inherent difficulties of such a questionnaire became immediately evident and it was decided, instead, to make a simple survey of the motorist's knowledge of signs. Highway signs were duplicated on a board, following the designs of the "Minnesota Manual On Uniform Traffic Control Devices For Street And Highways." The scoring was done on the basis of ten signs to be identified at random.

1 error: Good
2 errors: Fair
3 errors: Poor

Again it should be pointed out that every effort was made to be liberal in the scoring on the motorist's card, but surprisingly enough, many motorists failed to score "good" on this rather simple test.

Finally, inquiry was made of the motorist reaction to these tests and to their value. The card was then given a general average score according to the method explained previously and a few general comments made as to the motorist's efficiency in his particular case and how he could compensate for his defects.

One thousand one hundred and ninety-five subjects were examined in 66 hours or an average of 18 an hour. Thirty-two optometrists working in groups of four took part in the survey, relieving each other at various intervals so that the survey booth was constantly attended during the exhibition hours. The survey was preceded by three training periods to familiarize the optometrists with the technique to be used in the survey.

The ability of the men to work fast and continuously varied

considerably. At times when long lines of subjects were waiting and fast operators were in attendance, as many as 40 subjects were put through during each working hour. Would be motorists were constantly waiting to go through the test line. The survey was limited to persons eligible to drivers' licenses in Minnesota, namely 15 years of age or older. The accuracy of observation varied somewhat with the men and the figures to be published in a later issue of the AMERICAN JOURNAL OF OPTOMETRY do not include findings uniformly out of proportion with the results of other observers. As each operator normally worked only one station, it is easy to locate in the work sheets those findings out of keeping with the general average. In spite of the training periods, some optometrists preferred to use their own way of taking and recording tests, thereby destroying their validity.

The greatest lack of uniformity was found in the measurement of binocular vision and of stereopsis. This was caused principally by incorrect technique and by some confusion of interpretation of the subjects' answers. A sufficient number of reliable findings are available however to enable one to draw several satisfactory conclusions. An analysis of the findings of this survey will be presented within a short period of time.

The writer wishes to conclude this preliminary report of the motorists' visual survey recently held in Minneapolis, by extending the thanks of the Minneapolis Association of Optometrists to the Hennepin County Safety Council who assisted in every possible manner, and to the Minneapolis Civic Council whose co-operation made the event possible.

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ORTHOPTIC TREATMENT OF EXOTROPIA*

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It has been the custom with some to divide all exotropes into two classes— the myopic and the neuropathic. More than one investigator has looked upon this classification as misleading, and the justification of this attitude is not far to seek; for myopia is by no means the sole refractive error found in ametropic extropia, nor do the so-called neuropathic cases exhibit any nervous lesions. From the clinical standpoint the classification of Remy is certainly far better. He divided his cases into two groups—the first comprising those who were capable of normal convergence and the second those who were not. The second group is by far the smaller and generally speaking does not respond to orthoptic treatment. Actually we cannot point to a single ocular or physical condition and say that it will produce exotropia. What we have before us is an end-result of a process or series of processes which have culminated in the deviation. Among such cases we may find myopia, hyperopia, astigmatism, faulty accommodative action, visual suspension, ocular disease, faulty muscular development, etc., but no one of these is in itself capable of causing an eye to deviate. The same arguments which have been urged against the refractive causation of convergent strabismus apply here with even an added force—for example, we know that the majority of people who have one of the afore-mentioned conditions do not squint.

While it is not possible to demonstrate a definite nerve lesion in the exotrope there is a tendency to attribute the onset of the condition to a lack of neural balance. To many this is merely a case of putting the origin one stage further back without explaining it. We must confess that there is considerable truth in the criticism, for we are still left with a need for some explanation of the neural imbalance itself. This much is true, however, there is far more in the exotropic condition than just an ocular devi-

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ation, for attempts to treat it by exercise alone or surgery alone do not meet with success. It follows that whatever is proposed in the way of treatment must be directed toward the re-education of the neural control. Our usual methods of orthoptic training are in the main unsatisfactory, their sole object being to train a sufficient amount of duction or fusion reserve which is capable of neutralizing the tropia. In other words we develop the relative pulling powers of the group of muscles opposite to the direction of the deviation. We may succeed in straightening the eye, but the result is temporary only; slowly but surely the condition slips back to what it was before. If we analyze our cases of exotropia we shall observe certain characteristics which definitely demark them from all other varieties of strabismus. If convergence is comparatively good, accommodation and the stereoscopic sense are faulty. This occurs so often that one can almost look upon them as distinctive of the condition. Eyes which have deviated outwards for years show a definite depletion of accommodative power. Usually the older the squint the greater the accommodative deficiency, and when the eye is corrected the part played by the accommodation is generally ignored. Yet it is fairly obvious that an amplitude of 2.0 D, and the left sound eye has an amplitude of 5.0 or 6.0 D, in near vision one eye only will be used and as there is a disposition to deviate we are permitting or rather encouraging the re-establishment of the state of things we have striven to remove. The more squint is studied the more is it apparent that to maintain exact convergence both maculae must be engaged with a sharp clear image. It is not enough to yoke the para-macular areas and leave it at that. Convergence and macular stimulation are intimately associated, and the adequate functioning of the ciliary muscles is essential. In all exotropic cases it is essential that we assure ourselves that both maculae are exercised in the act of vision. Perhaps the best means of doing this is by the F and L chart in what is more or less its original form. The subject may be able to fuse the two letters into an E with a varying amount of prism depending upon the degree of his strabismus, but this is only a gross result; it tells us nothing of the quality of vision used. In the upright portion of each letter there are three small characters which when fused read x y z. These are sufficiently small to engage close attention, and by carefully questioning the subject as to the clarity of their several parts we may discover whether there is any preponderance of one eye above the other.

Supposing the subject having fused the two letters into an E fails with the smaller ones, then we have two possible reasons for this. The

one being faulty accommodation and the other visual neutralization on the part of the deviated eye. We may distinguish between the two in a very simple manner. If the application of plus sphere power before the faulty eye results in the smaller letters being read then accommodation is not functioning as it should. If the letters are not read we can say that visual neutralization is taking place for small objects and the condition requires further analysis. It may occur to some that the use of an ordinary near-point rule would tell us all that we required to know, and of course, we must admit that it will be a sufficient indication as to the amount of accommodation exercised, but it is of real importance that we should assure ourselves as to the nature of the behaviour of the ciliary muscles when the two eyes are compelled to work binocularly. The stereoscope with compensating prisms presents itself as the most convenient appliance for our purpose, and the chart of Javal gives us all that we can require for investigation when the two eyes are yoked together.

The existence of visual neutralization will nullify any attempt at the production of orthotropia unless it is itself abolished. Our attention has again been directed to this condition by the recent publication of the work of Cantonnet and Filliozat. We know it as suspension, but the term neutralization is much better because it can include much more than is indicated by the commoner word. True amblyopia ex anopsia is seldom met with in exotropia, for only in the most long standing and obstinate conditions it is impossible to make the exotropic eye see. Cantonnet's method of de-neutralization is sufficiently simple to merit wide application. He uses an opaque screen which is placed in a verticle bisecting position between the patient's eyes. A light is situated on the side of the faulty eye and the open fingers of the hand on the other. In the majority of cases the patient de-neutralizes at once and sees both hand and light. Previous to employing this method I have made use of series IV of the 6th edition of the charts of Dr. Emil Hegg, and indeed have not continued them since the inclusion of the method just described. In each of these charts an outer ring and some other characters are seen under binocular fixation, but the other objects are not the same and so we have an encouragement for one eye to preponderate, alternate occlusion causes the faulty eye to see the peculiar characteristics of the object presented to it and by a little persistence it is possible to cause an alternation in the mental images while the two eyes have binocular fixation. If the neutralization is pronounced we may employ an appliance similar to a Remy Separator and have the patient observe the chart under monocular vision.

In this fashion it becomes possible to cultivate the production of diplopia and with that the way is clear for a direct attack upon the exotropia.

The next stop is, then, the cultivation of fusion. A relatively large number of instruments are available for this purpose ranging from a simple stereoscope to those elaborations of Worth's Amblyoscope. All these appliances are valuable, although it is sometimes difficult to discover what advantage the more complex ones have over those of simpler construction. Actually all that is required is some device which is capable of so compensating for the exotropia that the two images are fused. By careful questioning we may ascertain the quality of the fused image, sometimes it is very poor while in others high stereoscopic relief is at once manifested. In the majority of poor cases exercise will develop stereoscopic perception. Some may doubt this statement, and may be disposed to quote certain anatomical and physiological points against it. I do not wish to drag readers into the maze of philosophical teaching which is associated with the term "idealism," or more properly idealistic realism propounded by the celebrated George Berkley of Cloyne, nor do I wish to specially advocate what is to me the perfectly reasonable theory of the renowned Hering, that it is the formation of similar images on points of the retina that do not correspond which is at the root of our perception of relief. I would remind you that whatever be the physiological mechanism of relief perception, its appreciation is a mental process depending very largely upon the patient's tactile sense. This being so, some exercise in the appreciation of relief will result in a more definite estimate of its visual value to the patient. It is a fact of clinical experience that if we place a given strabismic patient under the influence of some compensating device he will at once perceive the third dimension. When the device is removed diplopia prevents such perception. If one may reason dialectically from this it would appear that by overcoming the diplopia and preserving the highest grade of stereopsis we can correct the exotropia. In the past it has been the custom to provide the patient with a graduated stereoscope and a set of charts, today such a practice does not commend itself—stereoscopes are not very useful in the hands of the average patient. They are looked upon as interesting for a time and then become commonplace and boring, besides which they are neurologically useless. To permit a patient to exercise for one hour of his sixteen hour day does not help, because the benefit of that one hour is nullified by the neglect of the other fifteen. We must give him something which can be used as much as possible and for this reason the use of base in prisms has

been adopted in many quarters. Now prisms are not the best means that we could have—Cantonnet and Filliozat have proved that, but they are, at least the most adaptable. The two gentlemen referred to have shown that in 70 per cent of strabismic cases definite mental effort to overcome the deviation proves the most successful, but all patients are not capable of making the mental effort and so we have to fall back on something which will enable fusion to take place without effort. The idea of employing prisms for such a purpose is not new, but until recently they have been used in a very unsatisfactory fashion. Their utility is simply to establish fusion and that is all, but the exercise of a pair of eyes which are under their influence results in the production of a certain amount of fusional reserve, which in turn permits us to progressively reduce the prism power. Prisms are, of course, used in convergent strabismus, and this is referred to in order to point a difference in their clinical application. In esotropia I have found it best to give a slight under correction and encourage the interni to relax, but in exotropia, especially where it is of the occasional variety, there is indication that a full correction is desirable. This is perhaps due to the fact that exotropia is a relaxed condition and every step in its correction must be well established before the next one is taken. The prisms are prescribed binocularly for the two reasons:—equal distribution of weight and aberration, and the fact that strabismus is very often a binocular condition. If we place the whole of the prism before one eye it is at a disadvantage owing to prismatic distortion and so neutralization is encouraged in an eye already disposed to it. In short, we equalize the visual demands of the binocular apparatus between the two eyes. Patients respond to the correction in varying ways. It takes one to two months to produce the initial manifestation of a reasonable amount of fusion reserve, and if the patient is slow in starting we may be sure that the process of correction will be slow throughout. Actually it does not matter how long it takes, really the longer the better, for then we have no slipping backwards when the treatment is concluded. With each increase in the fusion reserve we decrease the power of the prisms until at last we come to a stage where the eyes are straight. This is the most critical period of the whole treatment, for the patient has orthotropia and usually a poor adduction, and if care is not exercised the demands of near vision can tip the scale so that the whole condition slides backward again. Prismatic segments attached to the lenses enable us to keep this danger at bay, and their use must be insisted on, when all near work is performed.

If the patient is amenable to orthoptic exercise we may accelerate the process of recovery by such means. One of the most valuable, yet apparently one of the most neglected of exercises is what we may term "drilling" the convergence. This is performed by means of a pencil or a small rod on which is mounted a white ball (a Traquair scotometer target serves admirably). The patient fixes the object at some convenient distance from him and it is then approached while the practitioner watches the movement of his eyes. The point of resignation of convergence effort is carefully noted and the object moved away until fixation is again observed. This procedure is carried on over the area of single vision for twenty or thirty times, often the wearing of a pair of —2.00 D.S. over the correction is helpful while this is being done. Simple though this exercise may appear it is not quite so simple in its explanation. True we are exercising convergence, but we are also exercising the "awareness" of the two eyes — teaching the patient to maintain vision under convergence, or in other words exercising that function the breakdown of which produces the exotropia.

To recapitulate: In any attempt to correct exotropia we must correct depleted accommodation, abolish neutralization, promote and maintain fusion, and establish an adequate positive fusion reserve. In all this there comes the adequate, though not invariably the full correction of the basic refractive error. Perhaps in conclusion one may remark that the whole secret of the correction of exotropia is the cultivation of the mental effort to preserve orthotropia to such a degree that it becomes habitual, anything less spells failure.

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Current Comments by Carel C. Koch

Editor, American Journal of Optometry

Optometrists will confer a favor by sending for this department items of news of general interest; such as relate to new instruments, clinical techniques, education, public health and optometric legislation.

FUNDS REQUESTED TO MAKE POSSIBLE A SURVEY TO STUDY THE PROBLEMS INVOLVED IN DEVELOPING A NATION-WIDE PUBLIC RELATIONS PROGRAM

The Committee on Public Relations of the American Optometric Association in proceeding with its work of further studying and investigating the matter of a National Public Relations Program for Optometry, as instructed by the resolution passed at the last A. O. A. convention, find further exact progression in this study blocked by the lack of factual information which can be obtained only by a survey conducted by an acknowledged authority on such matters.

Inasmuch as the resolution continuing this committee *provided no funds whatsoever for doing this work*, especially the instigation of the Survey by Bernays, which will cost from $5,000 to $7,500, it appears that the work of this committee must either be held in abeyance, during which period much valuable time will be lost, or depend in individual interest and support to back this work until the next convention. At its recent convention, the Indiana Association of Optometrists set aside a sum of $500 to help finance such a survey immediately. In addition, several independent contributions have already been received by this committee especially ear-marked for this purpose. The Committee on Public Relations is pleased to note this interest and assistance and urges all optometrists who are interested in promoting this movement to send their own contributions and those of others in their vicinity as soon as possible. If we are to learn the basic facts of optometric needs and correct procedures this year, we must get to work immediately. Should the funds subscribed exceed the cost of the survey, the balance will be applied toward a public relations program. All contributions will be acknowledged and a complete audit and accounting of funds received and expended will be forwarded to each contributor. Readers who wish to have this committee continue to study effectively the problem of public relations and submit a comprehensive report at the Cincinnati convention should

send their contributions at once to its Chairman, Dr. R. R. VanKirk, 220 Veach Building, Oil City, Penna.

ATTENDANCE AT MEETINGS OF LOCAL SOCIETIES

After listening to a rather extended discourse, the good Dr. Oliver St. John Gogarty, of Dublin, Ireland, in reply to a colleague, who asked him how he liked the talk, replied, "He can say nothing in twenty thousand words." The story ends at this point. It does not tell us whether or not the oculist Gogarty had perhaps been attending an optometric rally of sorts, in which there was much embellished talk about very little indeed. There is no doubt, however, that many optometrists after listening to certain oratorical-optometrical harangues, have left their meeting, touched, without question, in the same way as was the pasquilant nature of Dr. Oliver St. John Gogarty.

And much has been lost thereby. Optometrists, in common with other professional people, are willing to readily attend meetings and are happy to sit at the feet of speakers who are able and anxious to present a well prepared message. But in considerable numbers they refuse to, year in and year out, attend gatherings in which they find themselves faced with the same group of speakers who dish up the same verbal rehash, one meeting after the next.

The local leaders of many optometric societies, complain piously of the lack of interest shown by the membership in certain educational programs of the local groups. Perhaps these local leaders should more carefully analyze the programs their optometrists have been invited to attend. Perhaps also, a change in the mental fare would add zest to the gathering and bring forth a large number of practitioners who refuse to further discuss their technical refraction problems with speakers who have long since had their say.

We fear, too, many local leaders fall into the rut of arranging their local educational programs along the lines of least resistance, and year in and year out book the same speakers just because these are easily available. This is an obvious mistake, and the practice if continued will do much to wreck any local optometric society. Optometrists like all professional people need the stimulus of change. Optometry has many outstanding practitioners who have real messages and who can and will prepare these. The time spent in bringing this new talent to the fore will pay big dividends in the attendance records.

OPTOMETRIC PLACEMENT SERVICE

The Northern Illinois College of Optometry[1] has announced[2] the creation of a specialized optometric placement service. This new department will be under the direction of Mr. J. H. Lucas. The new department is organized to assist both the graduate as well as the undergraduate student, and also the practitioner in the field. It should prove to be a valuable aid to optometrists generally and particularly to those who practice in the mid-west and central portions of this country.

The placement department has for its major objectives (1), the making of a country wide survey and analysis of suitable locations for graduate optometrists. (2) The finding of proper locations for graduate optometrists in those communities where optometrists are needed. (3) securing positions as assistants to practicing optometrists, and (4) securing part time employment for undergraduate students in Chicago.

In establishing this new department the Northern Illinois College of Optometry is engaging in a worth while and very forward looking activity. It is a service long needed in optometry and one which should prove very helpful in many localities and to many men. It is the type of activity which should be duplicated on the eastern seaboard by one of our large educational centers in that part of the country, and also by one of our colleges on the Pacific coast, as these sections, too, are in need of this specialized service.

OPTOMETRIC-MEDICAL RELATIONSHIPS

There is a chasm between optometry and medicine which I hope will never diminish. Not that I am in any way suggesting unfriendly relationships between these two groups. In fact, the opposite is the case, yet to assist in promoting the friendliest of relationships beween professions, it is necessary that this chasm exist. Without it, trouble of one kind or another is bound to develop. Where the activities of the two have a tendency to merge we find good optometrists dispensing poor medical advice to their patients and good physicians pretending a knowledge of refraction which is actually beyond them.

The chasm is a technical one, which is rarely bridged in a single individual. Success in refractive work requires a background of intensive

[1]Drexel Boulevard at Forty-Second Place, Chicago, Ill.
[2]Bulletin of January 26, 1940.

and thorough training not to be had in the undergraduate medical school, just as success in the practice of medicine requires a specialized type of training not found in optometric courses. To be sure, these technical courses do touch and overlap at several points but for the most part the necessary training is quite dissimilar.

It is also true that success in refractive work requires, on the part of the optometrist, a type of mental approach quite different from that usually found in medical practice. In making ocular refractions, instrumentation plays a large and important part and several of the physical sciences in the form of mathematics and physics are introduced, making this particular specialty quite foreign to the usual run of medical therapeutic work.

In medicine on the other hand, drugs are made to play a large and seemingly important part. This is not the case in refractive work where it becomes more evident every day that drugs are of but little value.

It is evident therefore that the fields of medicine and optometry have but little in common. Optometrists should therefore confine their activities to the ocular refractive and orthoptic fields while medical men as physicians should properly supervise the therapeutic phases of all health work. In this way and only in this way can the two work together in harmony, and the chasm be bridged.

INSTRUCTIONS IN FITTING PLASTIC CONTACT LENSES

A number of optometrists in different parts of the country have done outstanding original work in the field of developing and making practical the fitting of plastic contact lenses. To such men as the optometrist Greenspoon of Beverly Hills, the optometrist Adams of Detroit and the optometrist Feinbloom of New York City, and a small similar select group must go the credit for originating this corrective sub-normal visual technique to that point wherein it is now practical to generally prescribe these aids to sub-normal vision.

The announcement has now been made by Dr. William Feinbloom, 138 East 36th St., New York City, that during certain limited periods, classes of small restricted groups of optometrists would be personally taught his technique in the intricate work of prescribing and fitting plastic contact lenses. These classes will be held in his own office, in which

so much of the rehabilitation work in the sub-normal visual field has originated.

It is to the lasting credit of our really outstanding men in optometry that as soon as a piece of research has reached the proper clinical point, that they at once make it available to the profession through their writings, their personal appearances at meetings and through the pracical clinical demonstrations to their fellow practitioners in their clinics held at their offices. Practitioners interested in attending a clinical instruction session with the optometrist Feinbloom, should write for an appointment. A small fee covering laboratory costs, materials, etc., will be charged to each graduate optometrist to be registered for this work.

BUSINESS CENSUS AND OPTOMETRISTS

According to Mr. Harold Kohn, Counsel for the American Optometric Association, the Federal Census Bureau has adopted the following policy relative to the Business Census now being conducted. Optometry is a professional service and as such is not to be included in the Business Census. If an Optometrist practices the profession of Optometry exclusively and dispenses glasses only to his own patients pursuant to his own examination, he need not fill out the schedule. If an Optometrist fills prescriptions of other persons or sells merchandise, he should file a schedule showing the figures relating to his mercantile transactions solely. He should not return his professional income, since that information is not even desired by the bureau, but he must return and segregate his income and expenses relating to mercantile activities, if any. In other words, professional optometrists are not included in the 1940 Federal Business Census.

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A REVIEW OF CERTAIN CASES OF OCULAR ABNORMALITY IN WHICH INJURY WAS A FACTOR*

In cases of injury, wherein vision is in some way involved, it is frequently expedient for the physician to take what steps are necessary to correct the immediate effects of the injury, and then at some later period, make the necessary secondary corrective procedures to return the patient's vision to as near normal as possible. It is thus seen that in some cases, at least, the patient passes through two distinct phases of treatment. The first, having to do with the immediate effects of the injury itself, and the second, having to do with measures made necessary as the result of ocular abnormalities which remained after the immediate effects of the injury had been disposed of.

*The seventh of a series of nine papers dealing with clinical case reports by Carel C. Koch, Opt. D., F.A.A.O. The eighth of this series will appear in the April, 1940, issue of the AMERICAN JOURNAL OF OPTOMETRY.

It is therefore evident that the first portion of the needed work to be done in many injury cases consists of therapeutics and various types of surgical intervention. The second portion of the work, not to be undertaken until the first is finished, consists of the corrective and visual prophylactic steps which also must be undertaken to restore remaining vision to normal or at least useful levels. The clinical case reports which are included in this paper have to do in part with cases which have reached this second phase of the work, and are cases in which the patient's vision is either still uncomfortable, or cases in which the patient's visual acuity has been left, as the result of the injury, at certain subnormal levels. These post injury cases invariably require special diagnostic and refractive attention to return them to normal, and it is in this latter work that optometrists are frequently called in to assist.

Many optometrists seem to have a special flare for this sort of work. Because of their special training in ocular refraction and because all refractive work calls for painstaking attention to detail, these post injury cases are frequently given relief by optometrists, because of the exactness of their visual techniques and corrective procedures. While most of these post injury cases are naturally first refracted by oculists, many of these patients find it necessary to turn to opometrists to get the exact sort of attention and skillful refractive care needed to return to them, some degree of useful vision.

The reason for this is twofold. Most oculists are chiefly interested in the surgical and therapeutic side of eye work and the long-drawn-out and detailed training processes frequently necessary to re-educate the visual centers of a once injured eye does not appeal to them, even when they are familiar with the necessary techniques which have to be employed. And the second reason that necessitates many of these post injury cases turning to optometrists for help, is, that the oculist who has been in charge of the case is not sufficiently well trained in this phase of eye work, to accomplish the desired result by himself. Many oculists working in the field of the eye, ear, nose and throat, must rely entirely upon the training they received in these specialties at some short three or four month graduate course. A training all too inadequate to enable them to cope with the detailed visual problems presented by these patients.

The clinical case reports which follow have been briefly abstracted by the writer, yet each case report contains the salient points of interest

of the case under discussion. The reports all deal with cases in which an injury has played a part and are cases which were originally examined and prescribed for, by oculists. In each of these reported cases, the prescription or treatment given the patient by the oculist was in some way inadequate, and in each of these cases the patient was forced by resultant poor vision or by the uncorrected symptoms to turn to an optometrist for relief.

These brief reviews of previously published cases, are but few of the many that could have been included in this report. All have been taken from established sources of technical literature and all were originally written by competent eye specialists. These reports are from comparatively recent periods and indicate, that in injury or post injury eye cases, optometrists are able, because of their superior diagnostic and refractive training to assist these cases when ordinary ophthalmic procedures and techniques have failed.

CASE REPORT NO. 101

Harding reports the following case in the DIOPTRIC REVIEW, Vol. XLI, No. 2, pp 97-98. Patient, a woman, age 69, suffering from lenticular opacities and an old perforating wound in the cornea of one eye. An oculist prescribed the two following corrections, claiming this was the best he could do.

Distance correction:
O.D. —13.00 D. Sph.
O.S. —3.00 D. Sph.

Reading correction:
O.D. —9.50 D. Sph.
O.S. +0.50 D. Sph.

While these corrections enabled the patient to get about, her reading was limited to headlines in the daily press. She was most unhappy about this and consulted the optometrist Harding, who prescribed a new reading correction which enabled her to read J4 with ease. Harding's optometric reading correction as prescribed for this patient was as follows:

O.D. —8.00 D. Sph. ⌒ 3△ prism, Base-In.
O.S. +2.00 D. Sph. ⌒ 3△ prism, Base-In.

CASE REPORT NO. 102

Barrett reports the following case in the REFRACTIONIST, Vol. 28, No. 500, pp 272-273. Patient, male, age 28. He experienced diplo-

pia a year previously, said to have been caused by a blow on the head. He was wearing the following correction prescribed by an oculist whom he had consulted.

O. D. +3.00 D. Sph. ⌒ —2.50 D. Cyl. axis 180 ⌒ 1½ △ Base-Out.

O.S. +3.00 D. Sph. ⌒ —2.50 D. Cyl. axis 178 ⌒ 1½ △ Base-Out.

This relieved the double vision at a distance but he still experienced it when reading or doing near work. The patient then consulted the optometrist Barrett, who prescribed the following near-point correction which gave the patient complete relief from this annoying symptom.

O.D. +3.75 D. Sph. ⌒ —2.00 D. Cyl. axis 180.

O.S. +3.50 D. Sph. ⌒ —2.25 D. Cyl. axis 170.

CASE REPORT NO. 103

Baxter reports the following case in the AMERICAN JOURNAL OF OPTOMETRY, Vol. 9, No. 10, p 357. Patient, housewife, complained that her eyes had become quite irritated and one of them was constantly "watering." Prior to calling on the optometrist Baxter, she had first consulted an oculist who had prescribed atropine for the supposed ciliary tenderness as well as a few other lotions. These were tried without results. Following this first experience a second physician was consulted who prescribed an ointment to "aid lubrication"! This, too, was used without results. Baxter examined the patient who promptly recovered when he removed several eye lashes from deep within the upper culs-de-sac.

CASE REPORT NO. 104

Brombach reports the following case in the 1937 LECTURES OF THE NORTHWESTERN CONGRESS, p 251. Patient, female, age 21. Her present complaint was a loss of vision in the right eye, the patient recognizing only light and dark. She had also contracted an inflammation in the right eye and had a paresis of both upper lids. All this had occurred during her vacation several months before, and while she had been under the care of three oculists since returning from her vacation, no improvement had been made in her condition. The optometrist Brombach examined the case. The history revealed the fact that while on her vacation she had handled a dog that had been bitten by a rattlesnake. As a result of her case history, her ocular refractive findings and her visual and color field examination, Brombach made a diagnosis of ocular paralysis. The condition being caused by the patient accidentally get-

ting a minute portion of rattlesnake poison into her right eye as a result of rubbing the eye with her hand after holding the dog that had been attacked. A physician was called in consultation by Brombach. They then prepared a serum consisting of 1:1,500,000 part of rattlesnake venom. This was given the patient. Four days after this treatment with the serum the ptosis of both lids disappeared. After eleven days the deep conjunctival infiltration was practically eliminated. Vision was recorded as being normal in the right eye after one month.

CASE REPORT NO. 105

Greenspoon reports the following case in the OPTOMETRIC WEEKLY, Nov. 9, 1933. Patient, male, age 82. Three years prior to consulting the optometrist Greenspoon, patient was operated on for removal of cataract from the left eye. One year later the right eye was operated on. Patient claimed that vision was fair in the right eye before the operation, but since the operation vision has been very poor and lenses did not help to any degree whatsoever. He could read, only with the greatest difficulty, and his judgment of distance was very poor. The correction he was wearing as prescribed by an oculist was as follows:

O.D. +10.00 D. Sph.
O.S. +10.00 D. Sph. ⊂ +1.50 D. Cyl. axis 180.

This correction gave him the following visual acuity:

O.D. 20/800. O.S. 20/89. His uncorrected visual acuity was, O.D. 20/800. O.S. 20/800.

The optometrist Greenspoon examined the patient. This examination revealed that the right eye had been injured during the operation for cataract. There was a wide coloboma of the iris of the right eye. An over-deep incision into the sclera, during the operation, had paved the way for staphyloma by lessening the resistance of the sclera at the upper portion of the wound, and consequently on the resumption of normal intra-ocular tension, a bulging occurred at this point, allowing a bead of vitreous under the conjunctiva. The staphyloma caused a marked elevation of the corneal lip of the incision with a resultant marked change in corneal curvature.

The pupillary area of the left eye was covered with a fibrous membrane traversed by a vertical slit 1.5 mm wide. The fundus of the left eye could not be seen. The vitreous seemed dense and greenish in color. Greenspoon prescribed for the patient, the following ocular aids.

General purpose, Distance correction.

O.D. +4.00 D. Sph. ⌒ +11.00 D. Cyl. axis 176.
O.S. +11.00 D. Sph. ⌒ +2.50 D. Cyl. axis 4.

General purpose, Near-Point correction.

O.D. +7.50 D. Sph. ⌒ +11.00 D. Cyl. axis 176.
O.S. +14.50 D. Sph. ⌒ +2.50 D. Cyl. axis 4 ⌒ 5△ Base-Up.

The above corrections gave him the following distance visual acuity and enabled him to read magazine type with comfort. O.D. 20/89. O.S. 20/73.

Special Distance correction.

A 1.8x special telescopic spectacle unit was supplied the patient to be used over his general purpose distance correction. With this his visual acuity was increased to O.D. 20/73. O.S. 20/50.

Special reading correction.

A +6.00 D. Sph., add, was supplied the patient to use over the telescopic spectacle unit for reading newspaper print, which enabled him to do this without difficulty.

CASE REPORT NO. 106

Rossini reports the following case in the REFRACTIONIST, Vol. 21, No. 351, pp 383-384. Patient, male, occupation butler. A shrapnel splinter had struck his right eye during the war. Following this injury, he was operated on eight times at various intervals. Prior to the last operation his oculist informed him that he would, in all probability, lose the sight of one if not both eyes. Following the last operation his right eye was bandaged for four months and after removal of the bandages the patient was completely blind in the right eye and since has developed right convergent strabismus. Subsequently, he was seen by several other oculists who informed him that nothing could be done to improve vision. Patient called on the optometrist Rossini for advice as to the advisability of having the right eye removed for cosmetic reasons. Rossini prescribed orthoptic treatments and the following correction which gave him the following visual acuity. O.D. 6/18. O.S. 6/6. The final correction being,

O.D. +5.00 D. Sph. ⌒ —0.75 D. Cyl. axis 135.
O.S. +3.50 D. Sph. ⌒ —0.50 D. Cyl. axis 45.

CASE REPORT NO. 107

Jaeckle reports the following case in the AMERICAN JOURNAL OF

OPTOMETRY, Vol. 13, No. 12, p 461. Patient, male, age 64. Has suffered from very poor vision for the last two years. A cataract operation was performed upon his left eye in 1923 with unsatisfactory results. Use of the left eye was then abandoned. Nine years later the right eye was operated on for cataract, this time with better success. Eight months later the right eye suffered from a detachment of the retina, and nothing has been done for him since. Prior to visiting the optometrist Jaeckle, he could not go about outdoors alone and could only decipher large print with the aid of a hand magnifier.

The optometrist Jaeckle examined him and found his right eye to be entirely blind. Some visual perception remained in the left eye and after a week of visual training the following lens gave him a visual acuity of 10/80.

O.S. +12.00 D. Sph. ⊂ —9.00 D. Cyl. axis 85.

This correction was then supplemented by a telescopic spectacle, 1.8x., with adds for reading and writing. With the telescopic spectacle in place for special distance vision his visual acuity is O.S. 10/30 and with the reading adds he reads and writes with ease.

CASE REPORT NO. 108

Beggs reports the following case in the SOUTH AFRICAN OPTOMETRIST, (Johannesburg), Vol. 6, No. 2, p 48. Patient, male. Bullet entered cheek below the right eye and passed out at the side of the face in front of the ear. As a result of this injury, his field of indirect vision for the right eye seemed to remain normal, but the direct visual field seemed to be affected. He was treated for this wound by his physician, and when healed, the following corrections were prescribed for him, also by this same specialist.

Distance correction,
O.D. Plano
O.S. +1.50 D. Sph. ⊂ +0.50 D. Cyl. axis 180.

Reading correction,
O.D. Plano
O.S. +3.75 D. Sph. ⊂ +0.50 D. Cyl. axis 180.

The patient could not use these glasses and called upon the optometrist Beggs for assistance. The following corrections as prescribed by Beggs gave complete visual comfort.

Distance correction,
O.D. +2.00 D. Sph.
O.S. +1.50 D. Sph. ⊂ +0.50 D. Cyl. axis 180.

Reading correction,
O.D. +4.25 D. Sph.
O.S. +3.75 D. Sph. ⊂ +0.50 D. Cyl. axis 180.

CASE REPORT NO. 109

Arneson reports the following case in THE NEW OPTOMETRY, 1932, page 70. Patient, male, age 30. Patient was led into his office by his wife. He had lost his vision five years previously by a shell thrown into a pile of burning rubbish which caused an explosion directly in front of him. During this period, he had visited a number of oculists all of whom had diagnosed his case as one of detached retina. At one time he had been placed on his back in a hospital and was kept there for a six month period. The optometrist Arneson examined the case. The right eye had just light perception. The left eye could distinguish the 20 foot letter at 4 inches. A treatment correction was prescribed and orthoptic treatments were given. A relatively short time later the patient had 20/80 distance vision and could begin to do a little reading. He now gets about by himself without assistance.

CASE REPORT NO. 110

Baxter reports the following case in the AMERICAN JOURNAL OF OPTOMETRY, Vol. 9, No. 10, p 357. Patient, male, who had been unsuccessfully treated for six weeks by his physician with various lotions. Patient was then referred to the optometrist Baxter, who in making his external ocular inspection, discovered a minute particle of steel dust imbedded in the cornea. The removal of this particle gave immediate relief.

CASE REPORT NO. 111

Hunt reports the following case in the REFRACTIONIST, Vol. 28, No. 496, p 105. Patient, female, accompanied by several relatives called on the optometrist Hunt to have him suggest some type of powerful magnifying glass, and it was evident that a family effort was to be made to provide the patient with some sort of an appliance of an expensive kind. Her eyes were blind—a victim of an error of judgment when visiting an institute for the treatment of an inflammatory lid condition. Wrong drops had been used many years ago and she was resigned to a life of blindness. Upon examination, the cornea was smooth and translucent. The following correction gave her 1/36 vision and the entire psychological outlook of the patient was changed, as she could now get about without assistance.

O.D. +9.00 D. Sph. ⌒ +4.00 D. Cyl. axis 90
O.S. +9.00 D. Sph. ⌒ +4.00 D. Cyl. axis 90.

CASE REPORT NO. 112

Dowd reports the following case in the OPTOMETRIC WEEKLY, Vol. 30, No. 31, p 877. Patient, male, age 28, who had been in an airplane accident which resulted, among other things, in his having a badly lacerated face and severe injuries to the external tunics of the left eye. After these wounds had healed, he was examined by several oculists, who advised him (1) that nothing could be done to restore the sight to this eye, and (2) that in all probability it would be to his advantage to have the eye removed, as some possible future involvement might arise within this eye, which would then tend to affect the normal right eye. These men made no effort to refract him and because of the corneal scars which were present, assumed that vision in this injured eye was non-existent.

This sort of treatment displeased the patient and he called upon the optometrist Dowd for assistance. Uncorrected, the visual acuity of the left eye was confined to light and dark perception only. Corrected, however, with a —8.50 D. Cyl. axis 75, vision could be brought to normal or 20/20. This correction was then prescribed and has been used with complete comfort for some time.

SUMMARY

The Baxter cases were both suffering from undetected foreign matter in the eyes, which had been overlooked by oculists in making their ocular examination of these patients. The Harding case, which was suffering from the after effects of a wound in the cornea and who could not read, was given a correction which enabled him to read. The Barrett case was suffering from double vision, probably caused by a blow on the head and was given relief from this diplopia. The Brombach case had lost all useful vision as a result of accidentally getting snake venom into one of her eyes. A successful diagnosis on the part of the optometrist Brombach, as a result of visual field charting, enabled the patient's vision to be restored. The Greenspoon case was suffering from very poor vision which resulted from a staphyloma which in turn had been caused by an accident that occurred during an eye operation. The resultant correction by Greenspoon restored useful vision. The Rossini case was suffering from an original shrapnel wound, the treatment of which induced a strabismus. This was corrected and binocular vision was restored to this patient. The Jaeckle case was suffering from sub-normal vision due to a retinal

detachment. Useful vision was restored to this patient. The Beggs case had uncomfortable vision due to a bullet wound in the head. A proper prescription restored comfortable vision. The Arneson case had no useful vision as a result of the after effects of an explosion. Some degree of useful vision was restored to one eye in this case. The Hunt case was practically blind as the result of an accident in which the wrong "drops" had been placed in her eyes. Again some useful vision was restored to the patient, and the Dowd case had vision restored in an eye which had been pronounced blind.

CONCLUSIONS

1. These clinical case reports indicate that the average oculist, trained as he is in the surgical and therapeutic side of ocular care, fails to restore vision to its maximum in many cases of ocular injury, due to his apparent lack of interest or training in the important field of visual rehabilitation.

2. These clinical case reports indicate that optometrists, trained as they are as refractive specialists, are the logical visual technicians to successfully handle the refractive and visual rehabilitation problems of post injury cases.

CAREL C. KOCH.

PROCEDURE AND INSTRUMENTATION
By Guy L. DuPlessis

A department wherein discussions will be carried on relative to the value of various experimental and clinical techniques as employed by practicing optometrists, and also in which the instruments used by optometrists in various phases of their work, will be subjected to some critical evaluation.

STEREOGRAMS

The development of higher qualities of fusion as evidenced by stereopsis is an objective often talked of but seldom attained by the cruder stereograms described by Worth, Wells, et al.

Fusion in the bird and cage, broken E, etc., type of stereograms is a mechanical, willful super-imposition of dissimilar objects or a passive super-imposition if binocular balance is equivalent to the distances be-

tween images. These therefore cannot be used for development of stereopsis.

Development of depth perception may or may not be possible by stereograms, but if so, the stereograms must be rational, as incongruous images make interpretation of depth difficult. Incongruous images make for faulty interpretation and the purpose of a stereogram is to reproduce on a plane surface the solidity of object as seen in space. It is therefore necessary to avoid such arrangements as one side and front of a cube being seen by one eye, the opposite side as well as the front being seen by the other. As it is impossible for two eyes with a 60 millimeter base line to see three sides of a cube at once (not counting top), the effect is a trapezoid and as the horizontal lines are more easily fused, the conception of a trapezoid is dependent on a torsional effort of the eye unlooked for and probably undesirable.

Optometric experimenters, who design stereograms for their own use will be interested in an article in the JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, Vol. 28, No. 8, Aug., 1938, by John T. Rule, entitled, "Stereoscopic Drawings."

This paper reviews the optical considerations of both the mirror and lens types of stereoscopes, and also the drawing board requirements for preparing such stereograms. It reviews some of the physiological factors involved in accommodation and convergence, pointing to the use of reference points in determining the size and location of the object. Then follow practical recommendations on the preparation of stereograms for the avoidance of incongruity, such as location and size of objects, orientation of objects, intersections, curved surface representation, lettering, shading and paper surface. Another detail is that geometric figures can be treated as transparent and broken lines to show hidden parts in the conventional manner are eliminated. Descriptive geometry thus becomes visible as if a solid were transparent, and if the stereogram is carefully drawn, the illusion is perfect. This paper is of value to all optometrists but especially to those orthoptists interested in stereopsis and in the use of stereograms.

A CURVED PLANE PHOROPTER

This new version of the phoropter, by the *American Optical Company*, has certain interesting features. The principal departure is the mounting of the lenses in a curved plane instead of a flat plane, thus

presenting the lenses as close to the eye as possible, yet keeping the main bulk of the instrument further away from the patient's face than formerly. The lenses are mounted in two discs and by automatic index the net lens value is read directly. The cylinder axis and power controls, consist of a conveniently located double knob, making for simplicity and ease in operation.

Another feature is a measuring device to determine the distance between the cornea and principal plane of the lens combination. This is essential in a computation of the proper lens power when the finished lens is placed at a different distance from the cornea. The optical system of this new phoropter is almost completely enclosed for protection against fogging and dust. However, for cleaning purposes it can be taken apart quite easily. Its design appears to be convenient for retinoscopy. The usual accessories are included such as cross cylinders, rotary prisms and maddox rod. The range of the new instrument is from —19.12 D. Sph., to +16.87 D. Sph., and from 0.12 D. Cyl. to 8.00 D. Cyl. Plus or minus cylinders are optional. The new phoropter seems to have certain definite improvements both mechanically and optically over previous models as made by this company.

POLAROID LENSES

The ingenious polarizing material, Polaroid, is now available in lenses in which a correction can be ground. These lenses are made by laminating Polaroid materials between two semi-finished lenses using a new binder presumably capable of withstanding the pressures engendered in lens grinding. The introduction of this new lens opens a new field in the prescribing of special glasses for occupational or sport use. This lamination makes Polaroid lenses shatter proof, thus incorporating in one product, two new and valuable developments in the optical industry. The outdoor man who is entirely dependent on a correction for useful distant vision will derive considerable comfort from the use of Polaroid lenses in the form of special purpose glasses to supplement his regular correction made up in absorption glass.

BETTER LIGHT—BETTER SIGHT PROMOTIONAL ACTIVITIES

An announcement is made by the National Better Light - Better Sight Bureau describing its 1940 program. This program is designed.

according to the bureau in its statement, to develop a popular understanding of eye care and of the importance of lighting and protection of good seeing. Of possible interest to optometrists is the Public Relations Activities for *"Save Your Vision Week"* in March, and the Better Light promotional material in relation to general eye health and visual efficiency.

This department believes these activities well worth while. However, many optometrists may wonder what part they play in such a program other than being swayed by the propaganda designed for public consumption. Optometrists could cooperate in such programs with greater effectiveness if they were sure that in the planning of such programs their professional interests have been adequately considered.

They might also feel more free to cooperate if they felt confident that the program to educate the public in the delights and benefits of better vision was entirely factual and divorced or at least fairly independent of crass commercial consideration. This feeling of confidence might be engendered by the presence on the board of this organization, of more optometrists well known for their honesty of thinking and their uncompromising interest in the professional welfare of optometry.

ORGANIZATION AND JURISPRUDENCE

by Clarence W. Morris

A department in which some of the organization problems of Optometry will be discussed and in which certain of the legal aspects of refractive work will be reviewed.

NOTES ON THE APPARENT OFFICIAL ATTITUDE OF THE A.O.A. TOWARDS A PUBLIC RELATIONS PROGRAM FOR OPTOMETRY

In a previous paper[1] the writer attempted to trace the history of the movement for public relations with special attention to the defeat of this cause at Los Angeles. From the history of the struggle for public relations the attempt has been made to deduce just what is the basic policy of the American Optometric Association toward this problem. The con-

[1] Clarence W. Morris. The A. O. A. and a Public Relations Program for Optometry. American Journal of Optometry. Vol. 17, No. 2, pp. 85-95. 1940.

clusion of the writer in the previous article was that the A.O.A., apparently, does not believe that effective public relations is the best medium by which to advance optometric interests. It is extremely difficult for us to understand how such an attitude can be taken by the A.O.A. As much as we regret it, all the data leads us to this inescapable conclusion.

In this article we will trace these A.O.A. policies in action as we find them in the A.O.A. drive for funds of last year. We shall also observe the policies as we study the committees and departments of the A.O.A. which are engaged in various forms of public relations activity.

Let us first examine the drive for funds of last year. In the early part of 1939, the A.O.A. asked each optometrist to give $10 per month. If all optometrists could have been expected to contribute that generously, almost two million dollars would have been collected. It would be unreasonable under any circumstances to expect such a sum. Even with a generous discount for expected lack of response, the amount demanded was far in excess of the actual needs. When the results of this drive are evaluated by the ratio of the amount collected to the sum requested or by the ratio of that collected to the amount that might have been collected with a proper approach, the drive was a failure. The writer believes the amount collected was approximately $50,000. The reason for this estimate is the fact that the A.O.A. has announced a drive for $50,000 for 1940 to finance the work of the National Affairs and Public Relations committees. It would certainly be logical to assume that the amount collected in 1939 would be used as a guide in establishing the quota for 1940.

The failure of this drive is no reflection upon the loyalty of the optometrists. When the facts are analyzed, they seem to show that the average member may be more realistic and practical than those who govern A.O.A. policies. The national association entered this drive asking for an enormous sum of money without any definite specifications as to how the money was to be expended. Coupled with this extravagant demand and lack of clearly defined objectives, was the pressure of an appeal based upon dire "emergency". The estimated results of the drive show that something is wrong. Two decades ago a sum of $70,000 was raised. In 1939, the ability of optometrists to raise money was better than it was twenty years ago. The writer believes that $50,000 represents only a portion of the potential ability and willingness of optometrists to sustain a worthy cause when it is properly presented. Therefore, the failure of the drive is due to poor management

and indicates no lack of good judgment or loyalty on the part of the membership.

The efforts of the A.O.A. at the time (1939) seemed to be directed toward the establishment of a huge financial fund which was to be expended as the officers later decided. When it became apparent that the A.O.A. had not committed itself definitely to promote public relations many optometrists refused to contribute and some cancelled their pledges. On the other hand the national association sought to justify its failure to promote public relations with the excuse that the membership failed to provide sufficient funds. This alibi is found in the September 1939, JOURNAL OF THE A.O.A. in an editorial entitled, "Publicity Program for Optometry?", page 52. An editorial written by Kiekenapp, the Secretary of the A.O.A. A portion of the editorial states, "It seems to me that we have heard entirely too much criticism of the A.O.A. because of the fact that a publicity program was not forthcoming. The reason for the delay is due to the fact that some real money is needed before we can go ahead. In other words, the A.O.A. is ready to give the optometrists of the country the publicity they have been calling for if they (the optometrists) are ready to pay the bill." The editorial concludes with the admonition, "To the readers we suggest that you read carefully the minutes of the Los Angeles Congress in which the matter is fully discussed, then read Resolution No. 3 and when Dr. Van Kirk contacts your state association, state your convictions clearly. If you favor a publicity program, back up your stand with visible evidence in the form of a sizeable financial contribution."

In this editorial we find recognition of that which the writer alleges, namely, that there is within the A.O.A. opposition to the development of a vigorous program of public relations, and also opposition to the present policy of that organization as this relates to the public relations activities which are now carried on. This latter opposition is generated from the natural tendency to question a movement which asks for money far in excess of that which is needed. The demand was for $10 per month. Yet it is alleged that there was not enough money to promote public relations, whereas, a National Program of Public Relations can be supported on $10 per year per optometrist. Optometrists were asked to give twelve times the amount required to support a public relations program. We estimate the amount contributed was about $50,000 which was adequate to finance a real public relations program. Since no public relations program was adopted, then what has been done with the money

collected? If it had been spent for public relations it would have been sufficient. Obviously some "substitute" has been purchased. Has optometry been adequately presented to the public? Have we any success in Washington in obtaining freedom from discrimination? What have we then to show for the last year's activity and the $50,000 entrusted to the A.O.A.?

The demand for an excessive sum of money without submission of a definite program for expending same naturally excites caution upon the part of those importuned to give. This opposition does not question the sincerity or integrity of the A.O.A. officers. In fact, there seems to be a genuine feeling of respect for and sympathy with the men who carry the burden of these problems. Nevertheless, it is the inalienable right of optometrists to question the advisability and expediency of the A.O.A. policies. The fact that these officers were elected with confidence to their high positions does not bind the membership to unintelligent subservience to policies detrimental to optometry.

When we view the A.O.A. editorial admonition (JOURNAL OF THE A.O.A., September, 1939, page 52) to the dissatisfied members to finance public relations in a separate independent fund of their own creation, the antagonism of the A.O.A. to public relations begins to emerge. The creation of a separate fund to finance public relations in competition with the present A.O.A. demand for $50,000 for National Affairs and Public Health committees will confuse the membership and again temporarily defeat public relations. The technical differences between a genuine public relations program at $50,000 as recommended by Van Kirk at Los Angeles and the home-made imitation (Public Health and National Affairs Committees) now being sponsored by the A.O.A. for $50,000 are too subtle for any one to appreciate without considerable study. However, we optometrists can appreciate the difference more quickly in terms of the results obtained. In these terms our home-made substitute has proved a grand failure in comparison with what we might have done with a genuine public relations program. If we are going to pay the price of a genuine public relations program, why not insist upon the genuine article and refuse the substitute? Here is one place where it will pay to "prescribe by name" and insist upon the genuine article.

May we pause at this point to declare that we believe the work of the Public Health Committee and the National Affairs Committee includes much that is valuable to optometry. The talent we find in these

committees should be retained. Rather do we protest against the substitution of these committees for a genuine public relations program. With the adoption of a public relations program, that which is valuable in these two committees would be preserved by integration with the complete program.

Let us continue with a more searching examination of the content of the editorial entitled "Publicity Program for Optometry?". (JOURNAL OF THE A.O.A. September, 1939, page 52.) Optometrists are admonished to read the report of the Convention and Resolution No. 3 when they receive the questionnaire from Dr. Van Kirk's Committee relative to public relations. As we have shown in the previous article, the account of the disposition of the Public Relations issue in the JOURNAL OF THE A.O.A. August 1939, pages 28-32, seems to be in error at many points. The Resolution No. 3, as we have previously shown, constitutes a gross distortion of the actual recommendations submitted by Dr. Van Kirk. If an optometrist has no source of information other than those to which he is so carefully referred by the editorial in the A.O.A. Journal, it is inconceivable that he would vote in favor of public relations. Why should an optometrist vote for public relations at the alleged figure of $150,000 (actually $50,000) when a substitute, recommended as satisfactory by the A.O.A., is offered in competition therewith for the small sum of $15,000? We assume that many optometrists will not yet be aware of the present demand by the A.O.A. for $50,000 to finance this substitute program in the year of 1940. When optometrists become aware of the present demand for $50,000 they will be prompted to ask why they should purchase a substitute and pay the price of the genuine article? *But if they have read only the A.O.A. Journal to which they are so definitely referred, then they will not know that the genuine article (public relations) can be purchased for* $50,000 *and, therefore, lacking correct data, would probably vote in favor of the substitute.*

Perhaps the reader may question the correctness of the statement that the Public Health and National Affairs Committees constitute the official A.O.A. substitute for genuine public relations. Again we refer the reader to the record (JOURNAL OF THE A.O.A. August, 1939, page 32, Dr. Lester W. Sugarman, Meriden Connecticut), "May I just bring to the attention of the delegates what I consider the salient points of these Resolutions? Resolution No. 3, as I understand it, calls for an immediate expenditure of $12,000 (actually $10,000) and the possible

future expenditure of $150,000, (actually $50,000—the same as now demanded for the substitute) and sets up a public relations program. The adoption of Resolution No. 4 would mean the expenditure of $15,000 (actually $50,000 we estimate), en toto, *and a Public Relations Program through a Public Health Program.*" This is the record to which the A.O.A. editorial refers every optometrist before he "states his convictions clearly" upon the proposed questionnaire dealing with public relations. The fact that this statement exists in the record seems sufficient to establish the identity of the "subsitute."

As we summarize the facts we find the A.O.A. attitude toward public relations becomes more definite. We discover the official attitude as we read it in the record to be this: The A.O.A. does not propose to sponsor public relations; the Public Health Committee and the National Affairs Committee constitute the official conception of a substitute for Public Relations; the A.O.A. is willing that the dissatisfied members finance a public relations program, providing they first underwrite a competing and substitute program for $50,000; when this obligation is met, then the A.O.A. generously offers its cooperation in holding the finances of any dissatisfied elements who wish to raise another $50,000 to finance a genuine public relations program in competition with the imitation program sponsored by the A.O.A.

Let us continue this article by turning our attention to the several optometric committees and departments which are now engaged in various forms of public relations activity. We find at the present time four different committees active in the field of public relations. For the year of 1940, it is proposed that these four committees spend $56,300. Of this amount only $6,300 comes from the regular budget and it is proposed to raise $50,000 by subscription.

The first committee we shall examine is the National Affairs Committee. The chairman of this committee is a very distinguished optometrist—Dr. Dicus. His committee has an appropriation of $2,000 from the regular budget. The balance of the funds needed by this committee is to be raised by subscription. The work of this committee is essentially public relations. In a regular program of public relations this type of work would be delegated to a newspaperman who has had long years of experience with government agencies in Washington. A man with contacts which had been built up as a newspaper correspondent should be able to discover what is going to happen before it occurs thus affording sufficient time to prepare for the inevitable. Such a contact man

would naturally have to work in conjunction with a committee of optometrists as we find in the National Affairs Committee. Here we have such a committee of optometrists attempting to do a very special type of public relations work without the proper type of contact man; without the guidance of a public relations counselor and therefore, without the ability to apply the pressure of *Indirect* publicity in coordination with the activities of a competent contact man.

It is no wonder that the National Affairs Committe has been unable to properly secure the inclusion of optometry into the federal plans for socialized medicine. Inclusion of optometry into the blue prints of social health legislation under such terms as will prevent the continuation of the present type of discrimination can only be accomplished with adequate facilities. One of the most potent agencies we have failed to use is that of Public Demand. The specific task of the public relations counselor is to make a latent *Public Demand* become "manifest" through effective publicity and other well placed activities. That this essential function of public relations is an absolute necessity for success at Washington is found in the words of Senator Murray who stated, "One thing that may mean the inclusion of optometry—is *Public Demand.*" Strange as it may seem, here are we optometrists, pleading with optometrists for the adoption of the only agency (Public Relations) which is capable of furnishing our committee in Washington with the necessary *"Public Demand."*

What has been achieved in recent months in the field of publicity? There has been no vigorous presentation of optometry to the public in press or other media. Optometry was given good radio publicity during the Los Angeles Convention but that was localized geographically and of a temporary nature. There has been no sustained and persistent presentation of optometry through press or other means. There was one bit of press publicity for optometry which was of doubtful value. We refer to the release dealing with contact lenses during the World's Fair at New York.

The activity of the National Affairs Committee in cooperation with the Board of Trustees has failed to date to properly secure the inclusion of optometry in the present public health plans; it has failed to stop certain discrimination against optometry; it has failed to stop certain aggressive undercover attacks upon optometry; and it has failed to secure any adequate and sustained presentation of optometry in the press

and some of the insignificant publicity which did appear was of questionable value to optometry.

The second committee we wish to investigate is the Public Health Committee. The chairman of this committee is the eminent Dr. Feinbloom. This committee has no regular budget allowance unless it be included as a subdivision of the National Affairs Committee. The $15,000 of Resolution No. 4 for this committee comes from the special funds raised by subscription. For the support of the Public Health and National Affairs Committees the A.O.A. has announced a drive as of January 1, 1940, for $50,000. The work of the Public Health Committee is to gather "validated statistics and data" through surveys and investigations. The object of such activity is that said committee (1) shall become an authority in matters of care in relation to public health and (2) aid the individual states in all technical work such as the promotion of public health clinics.

With the purposes of the Public Health Committee as outlined in Resolution No. 4, no one could object. However, it seems that the Public Health Committee is not confining itself to the field of activity allotted to it by the House of Delegates. Instead of a committee for gathering statistics, we find it becoming an agency for disseminating data to the public. We observed at the Pennsylvania State Convention recently, a public demonstration under the supervision of this committee. Both the collection and dissemination of data fall into the sphere of public relations activity. As an agency to disseminate data it becomes a fifth rate medium and a very poor substitute for public relations. An independent demonstration under the auspices of an optometric organization is recognized by the public as just a bit of "advertising." Its purpose is too obvious to be effective. Furthermore, it is just as expensive as it is ineffective.

The departure of the Public Health Committee from the field of activity allotted to it has been noted by others. We quote from an editorial entitled, "It Can Be Demonstrated" in the October, 1939, issue of the JOURNAL OF THE NEW JERSEY OPTOMETRIC ASSOCIATION, "The original expressed purpose of this bureau was to gather statistical information to be used in support of certain documents which the State Association might be called upon to present in connection with the National Social Health Program. Are the statistics being gathered and where are they coming from? Do they affect New Jersey or are they some obscure data affecting some group in Borneo? . . . Are we to understand that

Public Health and Welfare has some connection with the fields of scholarships and research or isn't it rather associated with posters, bulletins, charts, pictures which are to be presented for the public's information?"

At Los Angeles it is reported that the proponents of Resolution No. 4 in advocating the creation of a Public Health Bureau contended that we were not ready to make effective use of Public Relations. We must first have a Committee on Public Health to conduct an intensive investigation and to find the accurate data and facts upon which optometry can rest its case. Without this data, it was inferred, a Public Relations Program would have nothing to present to the public. The editorial in the JOURNAL OF THE A.O.A. carries forward this same thesis in the idea of "Back It With Facts—Not Propaganda." (November 1939, page 111.) In other words it seems that an attempt is being made to sell optometry the idea that it is in such shape that it would be difficult to attempt to present a case for optometry to the public as we now stand. The editor of the JOURNAL OF THE NEW JERSEY OPTOMETRIC ASSOCIATION raised the same question when he wrote, "Isn't it a fact that by the presentation of our present qualifications we should be granted sufficient recognition to warrant our participation in public school work and government agencies?"

The idea of gathering "validated statistics and data" by the Public Health Committee is commendable, providing that it confines itself to this activity. Furthermore, if this data is to be gathered upon the assumption that the case for optometry is so hopeless that it is futile to attempt to present optometry directly to the public by Public Relations ("Propaganda" in the A.O.A. Journal), then we repudiate this insidious slander upon optometry. Where did this idea come from? Was it not introduced to optometry by optometrists? If this idea had come from certain outside sources, perhaps, it might then be easier to understand.

The third A.O.A. agency engaged in public relations work is the Department of Public Information under the direction of Dr. Walter Kimball. The 1940 budget allowance for this department is $4,000. The activity of this department is well known and appreciated. This department contacts newspapers over the country giving them data upon optometric activity. The department of Public Information also furnishes copy for radio talks and addresses for optometrists as well as various pamphlets and the VISUAL DIGEST. The work of this department is definitely public relations.

The fourth agency is the Department of Public Relations under the supervision of the efficient Dr. Jarvis. This department has a modest budget of $300. The duty of this department is to contact publishers who release any material detrimental to optometry and attempt to secure the elimination of any such discrimination. This also is a form of public relations.

These four committees are all active in the field of public relations. These four committees monopolize the funds appropriated for public relations. There is a fifth committee but it is not active in the work of public relations and it has no funds with which to promote such work. This fifth committee is known as the Committee on Public Relations whose chairman is Dr. R. R. Van Kirk. The duty of this committee, according to Resolution No. 3, is to continue further the study of public relations and to make a report at the next annual convention at Cincinnati. The report of Dr. Van Kirk at Los Angeles was as complete a report on public relations as can be compiled by any one without the data which can be secured only by a Preliminary Public Relations Survey. Therefore, it becomes necessary that this committee engage the services of a public relations counselor to make this "further study." A Preliminary Public Relations Survey will produce additional essential data and make it possible for the committee to formulate the content and costs of a well planned program of public relations. Without this additional data the committee will be unable to work out the details of such a program and will have nothing to report at Cincinnati in addition to that submitted at Los Angeles. Furthermore, they will have no specific plan to submit for endorsement to the several states; and there will be no point in devising plans for financing a program which has not been carefully outlined.

The Resolutions Committee in framing Resolution No. 3 laid upon this Committee these obligations but did not make specific provisions for financing this "further study and report." Those who are opposed to public relations will naturally insist upon a narrow interpretation of Resolution No. 3 and object to the committee making a direct appeal for funds to finance this further study of public relations. The inconsistency of such objections is obvious. If it is demanded of the Committee that they make a further study and report on public relations, is it consistent to refuse the Committee the right to obtain the funds necessary for carrying out this work of investigation?

Resolution No. 3 provides that the details for financing a program

of public relations must be approved by the delegates at Cincinnati. Meanwhile the A.O.A. plans to secure the $50,000 to finance the competing and home made substitute for a genuine public relations program. The failure to make provision for funds to finance this study and the definite effort to delay any possible public relations program, as evidenced in Resolution No. 3, until after the A.O.A. shall have its competing and substitute program under way betrays the presence of a definite hostility toward the consideration of public relations. Fair consideration of public relations would require that full details on public relations be submitted *before the A.O.A. embarks on a definite program to finance a program which is a substitute for, and a competitor of the genuine public relations program.*

When we attempt to evaluate the work of these four committees, we find the sum total of their efforts to be inconsequential when compared with either the needs of optometry in the field of public relations or with that which optometry would provide for itself in this field, under proper leadership. When public relations is adopted all five committees should be reorganized into one committee with the personnel of the four committees working as sub-committees of the enlarged and reorganized committee on Public Relations.

Here we find four committees all engaged in public relations work with an anticipated budget in 1940 of $56,300. In an effectively organized public relations program, there would be ample opportunity to employ the talent we find in all four of these committees. However, there is a vast difference between four committees working more or less independently and in some measure of competition with one another and four committees working in coordination upon a unified program. Last year with this mushroom hit or miss organization we spent about $50,000. This wasteful administration is indefensible when we observe that for this same amount we could enjoy the efficiency and coordination that the adoption of a public relations program would bring to optometry.

In summarizing the work of these uncoordinated committee activities, we find that they are all engaged in some special form of public relations activity without the assistance and direction of a real specialist in this field. The employment of a public relations counselor would eliminate the waste due to duplication of efforts and competition between these various committees. Coordinated, efficient, centralized direction of these committee activities under a qualified public relations counselor would give results commensurate with the amount invested.

In conclusion, with reference to the question as to whether or not we approve of a drive for $100,000 for Public Health, National Affairs and Public Relations, we state that an examination of the facts compels us to reply in the negative. We approve only of $50,000 for public relations and a public health program included within the public relations program. In the January 1940 issue of the JOURNAL OF THE A.O.A., we note an editorial (page 165) entitled, "The Captain Was Sober Today." We quote (page 166), "It goes without saying, that a well planned Public Relations Program embracing *truth* and *affirmative statements of fact* about optometry, the *legitimate* and *legal* qualifications of optometrists to serve the great American public, and continued and ever increasing educational programs, constitute our "highway to acceptance. Our verdict must be issued by a court far beyond the fallible judiciary of the land. A court where verdicts are not so easily dismissed or reversed. After optometry's case has been ably presented and fairly judged, let that court, *the court of public opinion speak.*" We have nothing but approval for these sentiments. *But when we observe ideas like these becoming* effective in actions *then will be the proper time to recognize an official change in the policy of the American Optometric Association toward the problem of Public Relations.*

The trouble with optometry is that we have no long range integrated program. Some of us agitate for some goal in the field of organization; others advocate some objective in the field of education; another group believes legislation is the key to the problem. One year at our national convention we set up a goal in one field only to return the next year to substitute for the objective of the past year a new objective in another field of interest. We see our problem in parts instead of as a unit. What we need is a permanent committee of men representing the best authorities in the fields of optometric legislation, public health, organization, education, ethics and public relations. This committee should work along with a professional public relations counselor. Each subcommittee should present a careful analysis of the present status of optometry as well as the ideal objective to be attained. These various sub-committee reports should be studied by the committee of the whole which should evolve an integrated long range program. Each year this unified program should seek to attain certain objectives in the several fields of interest.

The conscious evolution of the profession to its ideal should be a planned and integrated program in which the timing of the various

activities and goals to be attained is of vital importance. If we know where we are or where we want to go we shall be able to find the means of arriving at the predetermined destination. But if we do not know where we are or where we want to go, it is certain that the best job of "muddling through" will mean painfully slow progress. It is as true as it is trite to say that success in any endeavor is attained by planning the work and then working the plan. This, fellow optometrist, is *Public Relations*. It is a far bigger thing than mere publicity. Public Relations means an intelligent long range carefully organized attack upon our problem on all fronts in close coordination. Public Relations is the very antithesis of the haphazard muddling through methods of the past years.

When we observe that a mediocre house painter, although we may hold naught but contempt for his methods and objectives, formulated a definite long range plan for rehabilitation of his adopted country, and when we observe the objectives scheduled for successive years attained with clocklike precision, then perhaps it becomes more clear, that with a well organized plan and with a consistent working of that plan on a definite schedule, a cause as worthy as that of optometry cannot fail of success.

ABSTRACTS

HEREDITARY MYOPIA. Annotations section. The Optician. Vol. XCVII, No. 2517, p. 366, 1939.

An important paper dealing with the hereditary aspects of myopia appeared in 'Arch. f. Ophth.' September, 1938. The author, L. Paul furnished statistical details of the relationship between the refraction of parents and the refraction of their children in some 628 German families.

He found evidence of myopia in 12.72 per cent of 723 children from families in which neither parent was myopic; 37.1 per cent in 297 children from families in which one of the parents was myopic; and 72.2 per cent in 98 children from families in which both parents were myopic.

Paul also found that the two types of myopia, simple and progressive, are transmitted separately and independently of one another. Progressive myopia occurs more frequently in families in which one parent suffers from progressive myopia than in families in which one parent

suffers from simple myopia. Myopia of low degree is comparatively rare in families in which either or both parents have progressive myopia.

The frequency of myopia of low degree is greater in female than in male infants. During the period of growth, however, this relationship changes so that, in families with myopia in the ancestry, myopia is more frequent among men than among women. This may be brought about through the influence of extrinsic factors, but these factors are especially effective in persons with myopia in their ancestry.

T.O.B.

* * * * *

THE CARE OF THE EYES IN 1833. C. H. Lea. The Dioptric Review. Vol. 35, No. 2, p. 175.

One of the most popular penny weeklies of 1833 in England was called THE DOCTOR. This periodical contained medical advice for the lay public, and some horrible illustrations which must have made laymen dread getting into doctors' hands.

In one of the issues information about eyes was given, and in this was impressed upon readers the importance of never wearing glasses until Nature indicated the necessity for such a procedure. Readers were also warned not to buy glasses from hawkers and peddlers who were ignorant of the science of optics and of the construction of the eye, because unsuitable glasses were dangerous.

Five rules were given for discovering whether glasses were necessary. If a person was obliged to shut his eyes from time to time during the day to rest them, he wanted glasses. If the letters in printed matter ran into one another and became doubled or trebled, the reader needed glasses. When a near object became confused and misty the observer needed glasses. When a person found that he had to place the candle nearer to his book when reading, he wanted glasses. When a person found it necessary to move small objects to an increased distance before he could see them properly then the need for glasses was urgent.

It almost seems as if the wearing of spectacles were something to be ashamed of, for anyone who observed in himself any of the above five indications was advised "to set aside all prudery, honestly confess that age is creeping on, and without coquetry or apology ask the optician for a pair of spectacles."

T.O.B.

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THE INFLUENCE OF ACOUSTIC STIMULI UPON THE LIMITS OF VISUAL FIELDS FOR DIFFERENT COLORS. P. A. Yakovlev. Journal of the Optical Society of America. Vol. 28, No. 8, 1938.

The results of sound stimuli on four color fields are given in this paper. The colors used are: Red (7000 A.U.), Orange-Red (6800 A.U.), Green (5400 A.U.), Blue (4400 A.U.). A Hardy perimeter was used enclosed in a box at an illumination of 30 Lux. The sound stimulus was of 75 decibels at a frequency of 780 vibrations per second, transmitted by phone receivers. A noise stimulus was provided by two 25 watt aternating current motors.

Repeated tests were made and conclusions were drawn from the means of those findings. The findings were as follows: Green and Blue fields expand under acoustic stimuli, while Orange-Red fields contract. The Red field remains unaffected by sound stimuli. This increase and decrease in peripheral color perception is parallel to the changes in central color sensibility due to sound stimuli. G.L.DuP.

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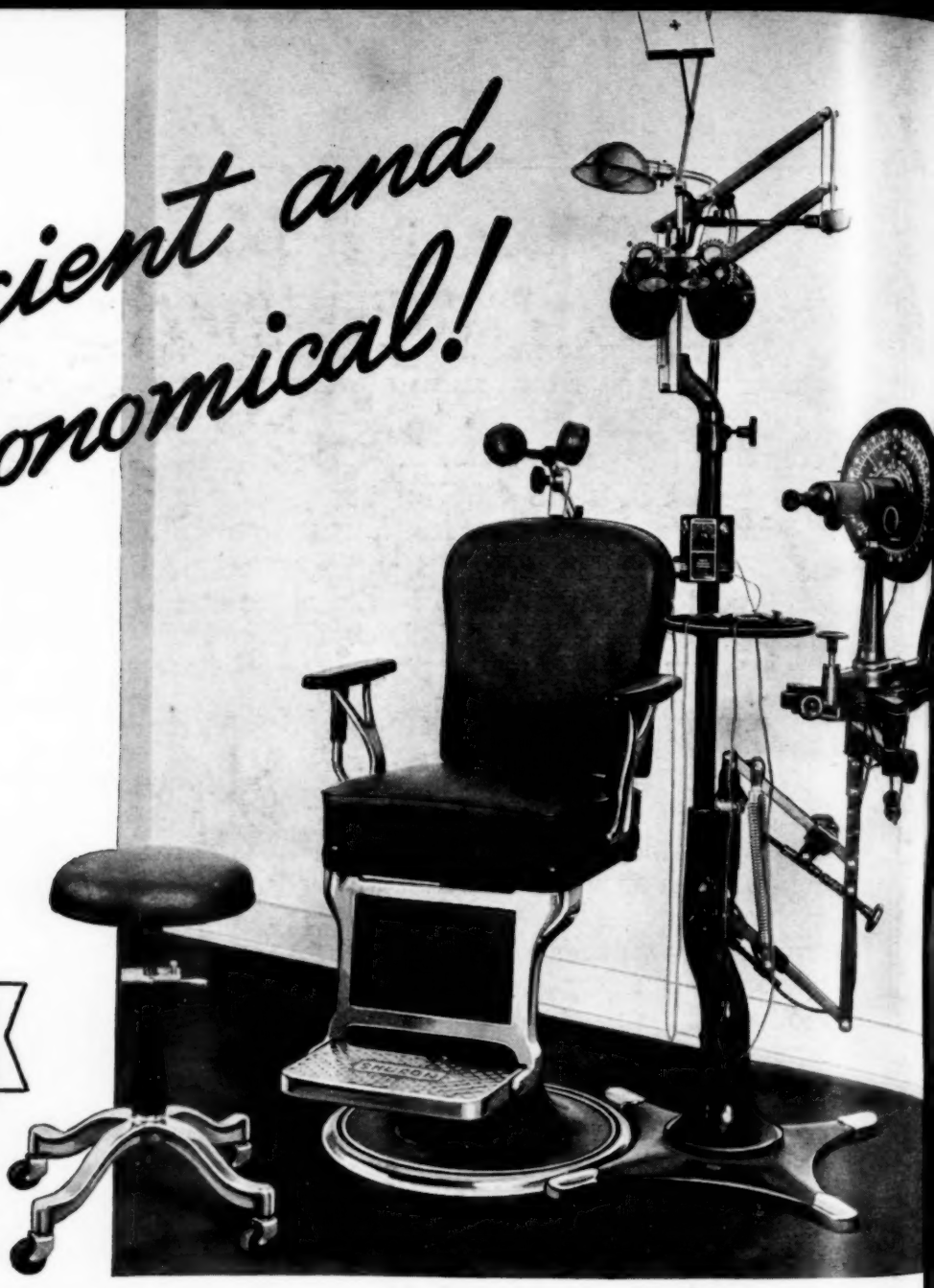

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